Metris adds major muscle to CMM

Belgian company Metris NV, has raised €20m ($26m) in its fifth round of financing and simultaneously acquired Belgium, Leuven-based Krypton NV and US Washington-based MetricVision Inc.

Japan's NIF Ventures and Sumitomo Corp are company shareholders, along with several Belgian VC's such as GIMV, KBC Dexia, and Fortis. Metris founder managers and the employees also have a substantial share holding.

Originally a software provider for point cloud based applications with its CADcompare package, Metris offered an integrated solution for automated pointcloud based part to CAD verification. Reference customers include DaimlerChrysler, VW, Ericsson, BMW, Bosch, Toyota, Honda and Airbus Industries.

Three years ago Metris acquired laser-scanning technology and packaged this in a laser sensor for co-ordinate measuring machines (CMM) counting among its customers DaimlerChrysler, BMW, VW, Honda, Opel, Toyota, Nissan, KIA Hyundai, Rolls-Royce and Siemens among others. Metris also has alliances with important CMM manufacturers such as Mitutoyo, Brown & Sharpe, DEA, LK, and Wenzel.

With Krypton it adds quality control and testing systems, based on highly accurate linear camera technology. Krypton K-systems are portable, hand-held optical coordinate measuring machines.

Krypton also specialises in robot-cell calibration and robot performance testing, enabling enhanced accuracy in robotic applications, and generating savings on robot programming and manufacturing down time.

MetricVision will contribute development and manufacture of precision 3D measurement laser radars based on coherent laser radar technology. Laser radar provides automated, non-contact measurement for large-volume applications of up to 60 meter radius.

Portable or fixed installation systems are in use by companies around the world in a variety of industries, including aerospace, automotive and power generation for inspection and in-process control of aircraft and spacecraft components.

Bart Van Coppenolle, Metris' president and CEO said "The synergies in our respective customer bases, product mix and organisational structures will further drive our rapid growth. The Krypton and MetricVision products are also fully complementary with our existing CMM OEM distribution network."

Southampton Photonics $3.5m contract

The US Air Force is providing a $3.5m contract to develop a laser weapon system that can be carried onto the battlefield to do such things as detonate land mines, pinpoint targets and even shoot down incoming missiles. Ultimately, the contract could be worth $25m if the project proves successful.

Los Gatos, based Southampton Photonics has developed a 2kW laser in its laboratory and hopes to have one ready for field testing by 2007, says senior VP Don Spalinger.

"In terms of capability, it's a combination of power and quality of beam. The targeting is easier to achieve with a fiber laser."

"As the beam goes through the fiber, it actually gains strength", says Rich Garcia, a spokesman for the US Air Force Research Laboratory's Directed Energy Directorate located at Kirtland Air Force Base in New Mexico.

Laser weapon designers have always struggled to develop lasers strong enough to do some damage, but small and mobile enough to be practicable. The optic fiber is the key component. It's made with erbium, ytterbium or a combination of both. Laboratory tests have shown an uncanny targeting accuracy and a tighter, more focused beam.

Next-generation funding will be used in developing smaller power generators and diodes to transmit raw energy to the laser fiber, says Bryce Samson, VP of business development for Nufern Inc, a Connecticut-based laser research and manufacturing firm.

The industry has gone from 100W in 1999 to 2kW today. Practical lasers emitting 10kW and even 20kW will be ready by 2010, but the Army will probably need a 100kW weapon.

That will require a phased array that combines several lasers to produce a single beam.

Osram's RGB In GaAlP or InGaN LEDs

Osram Opto Semiconductors launched a new compact, high-power Ostar LED at Lightfair International 2005. Setting new size and high brightness standards, the new LED offers more than 120 lumens output in a small 30x10mm footprint.

This device can be used in both general and mobile illumination applications and is available in red - 120 lumens output, true green - 160 lumens output, and blue - 36 lumens output. The tri-color RGB version offers a rating of 120 lumens typical light output when tuned in white color.

Each Ostar LED contains four high-power, thin-film indium gallium aluminum phosphide (InGaAlP) or indium gallium nitrite (InGaN) chips. Because Osram's thin-film chip emits light only from its top surface, the high chip luminance can increase the optical system efficiency and reduce the size of optics for lighting applications.

It can be mounted to lighting fixtures without any soldering, and it offers a surface-mount electrical connector. The LED itself can be mounted to a heat sink with a thermal paste for optimum heat dissipation.

Applications include coloured and red-green-blue white architectural lighting, fiber optics illumination, portable RGB light sources, medical lighting, aircraft illumination, automotive exterior lighting applications and portable projection units.

An evaluation kit is priced at $65. The kit includes a four-chip Ostar module that can be ordered with any combination of red, green and blue chips. Also included is a preliminary data sheet along with measured data. The Ostar LED is currently available for sampling with a delivery of eight weeks. Production volume is scheduled for 4Q 2005.